

## ABSTRACT OF THE DISCLOSURE

A wavelength locker. The wavelength locker can be mounted within an optical transceiver on a submount with the laser diode. The wavelength locker utilizes light emitted by the back facet of the laser to monitor the wavelength and power of the laser. The light is separated into two portions, at least one of which is passed through a filter to shift the wavelength thereof. Separate monitor diodes or photosensitive areas of a single monitor diode are used to measure the output of each portion of light. The outputs are analyzed to determine the wavelength of the light emitted from the back facet as well as the power of the laser and a controller can then change the temperature of the laser or otherwise adjust the wavelength of the laser when the wavelength locker detects that the wavelength of the laser is changing.

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